

Serial No. 10/747,657

Docket No. 1315-050

IN THE CLAIMS:

Please cancel claims 2, 5, 6, and 8 without prejudice or disclaimer; amend claims 1, 3, 4, and 7 as indicated below; and add claims 10-15 as follows:

1. (Currently amended) A method of producing TiC-transition metal-based complex powder, comprising the steps of:

(a) preparing a raw material mixture ~~[[of]]~~ by dissolving or dispersing a Ti-containing material water-soluble salt, $\text{TiO}(\text{OH})_2$ slurry or ultrafine titanium oxide powder, and a transition metal-containing water-soluble metal salt in water, followed by spray-drying to obtain precursor powder;

(b) calcining the precursor powder to form ~~ultra-fine~~ ultrafine Ti-transition metal complex oxide powder;

(c) mixing the ultra fine Ti-transition metal complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and

(d) subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere.

2. (Cancelled)

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3. (Currently amended) The method according to claim [[2]] 1, wherein the content of the transition metal in the complex powder is in the range of 1 to 30 wt%.

4. (Currently amended) The method according to claim [[3]] 1, wherein the ~~ealcinations~~ calcination is performed at a temperature between 350 to 1000°C.

5. (Cancelled)

6. (Cancelled)

7. (Currently amended) The method according to claim 1, wherein the ~~content of the~~ transition metal in the complex powder is ~~in the range~~ selected from the group consisting of 1 to 30 wt% Fe, Ni, and Co.

8. (Cancelled)

9. (Original) The method according to claim 1, wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.

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10. (New) The method according to claim 1, wherein the Ti-containing water-soluble salt is used, which is TiCl_3 , and the transition metal-containing water-soluble metal salt is cobalt nitrate.

11. (New) The method according to claim 1, wherein the TiC-transition metal-based complex oxide powder is a TiC-Co complex powder.

12. (New) The method according to claim 11, wherein the TiC-Co complex powder has a particle size of from 50 nm to 300 nm.

13. (New) The method according to claim 1, wherein the $\text{TiO}(\text{OH})_2$ slurry is used, and the transition metal-containing, water-soluble metal salt is cobalt nitrate.

14. (New) The method according to claim 1, wherein the ultra fine titanium oxide powder is used, which is nano-sized TiO_2 , and the transition metal-containing water-soluble metal salt is cobalt nitrate.

15. (New) The method according to claim 11, wherein said TiC-Co complex powder is TiC-15 wt% Co complex powder.

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16. (New) The method according to claim 1, wherein the transition metal consists essentially of Co.

17. (New) The method according to claim 1, wherein the steps are performed without ball-milling.

18. (New) The TiC-transition metal-based complex powder made by the process of Claim 1.

19. (New) The powder of claim 18 wherein the particle size of the powder is in the range of 50 nm to 300 nm.